SD-502 SDIO GPS Receiver
User Manual

1. SD-502 at a glance



2. System Specification

Electrical Characteristics (Receiver)	
Chipset	SiRF Start III
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 channel all-in-view tracking
Accuracy	
Position Horizontal	10 meters, 2D RMS 1~5 meters, 2D RMS with WAAS corrected
Velocity	0.1 m/sec
Time	1 micro-second synchronized to GPS time
Datum	
Datum	WGS-84 (default)
Acquistion Rate	
Hot start	1 sec., average
Warm start	38 sec., average
Cold start	42 sec., average
Reacquisition	0.1 sec., average
Protocol	
GPS Protocol	NMEA 0183 (default) SiRF binary (secondary)
GPS Output format	GGA (1 sec), GSA (1 sec), GSV (5 sec), RMC (1 sec). GLL and VTG are optional.
Dynamic Condition	
Acceleration Limit	Less than 4g
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/sec (1,000 knots) max.
Jerk Limit	20 m/sec**3
Temperature	
Operating	-10°C ~ +70°C
Humidity	5 ~ 95% non-condensing
Power	
Voltage	3.3 V
Power Consumption	110 mA
Physical Characteristics	
Dimension	95 mm x 30 mm x 13 mm
Weight	approximately 30 grams
Memory Size	512 MB
SDIO Specification	
• Compliant with SDIO Card Specification Ver. 1.00	
• Base on Bsquare SDIO Now!	

3. Introduction

SD-502 is a GPS Receiver with SDIO (Security Digital Input/Output) interface and an integrated built-in memory, which provides an impressive data capacity. The built-in 512 MB memory allows you to easily organize, store, and share files or documents. It also allows for tracking signals and large map data according to the mapping software usage. It's sleek and stylish design of look can go with any kind of the Pocket PC. With light and handy appearance, it is convenient for you to put it in pocket and bring it to anywhere you go. Just plug it into your Pocket PC, and use it to receive the GSP signal right away! Its cylindrical antenna can receive the signal from all directions by 360 degree. It satisfies a wide variety of applications, including car navigation, personal touring navigation or tracking and even marine navigation purpose. With our professional manufacturing technology along with the cutting edge, SiRF Star III chipset, this receiver has provided higher sensitivity, lower power usage and more rapid time-to-fix!

3.1 Features

- SiRF Star III high performance and low power consumption chipset
- Built-in high sensitivity GPS antenna
- LED to show GPS fix or not fix
- Built-in super capacitor to reserve system data for rapid satellite acquisition
- SDIO interface
- Operating platform: Pocket PC 2003, Win CE.Net, WM2003
- Base on Bsquare SDIO Now!
- Built-in memory size: 512 MB

3.2 Package

Before you start up, make sure that your package includes the following items. If any item is missing or damaged, contact your dealer immediately.

- SDIO GPS Receiver and its cover.
- A CD (including the User Manual, Driver and the Testing Program.)

3.3 LED Function

GPS Status LED (Green):

- Blinking — GPS position is fixed
- Steady light — GPS position is not fixed

3.4 Compatible Device

- Dell Axim X3 Pocket PC
- Dell Axim X30 Pocket PC
- Dell Axim X50 Pocket PC
- Dell Axim X50V Pocket PC
- Dell Axim X51V Pocket PC

- HP iPAQ h1930 Pocket PC
- HP iPAQ h1940 Pocket PC
- HP iPAQ h1950 Pocket PC
- HP iPAQ h2210 Pocket PC
- HP iPAQ h2750 Pocket PC
- HP iPAQ h4150 Pocket PC
- HP iPAQ hx2410 Pocket PC
- HP iPAQ hx4700 Pocket PC
- HP iPAQ h6315 Pocket PC
- HP iPAQ rx3115 Pocket PC

- Eten M500
- Fujitsu Loox 720
- Asus MyPal 730
- T-Mobile MDA compact

Devices listed above have been tested and proved to be compatible with SD-502.

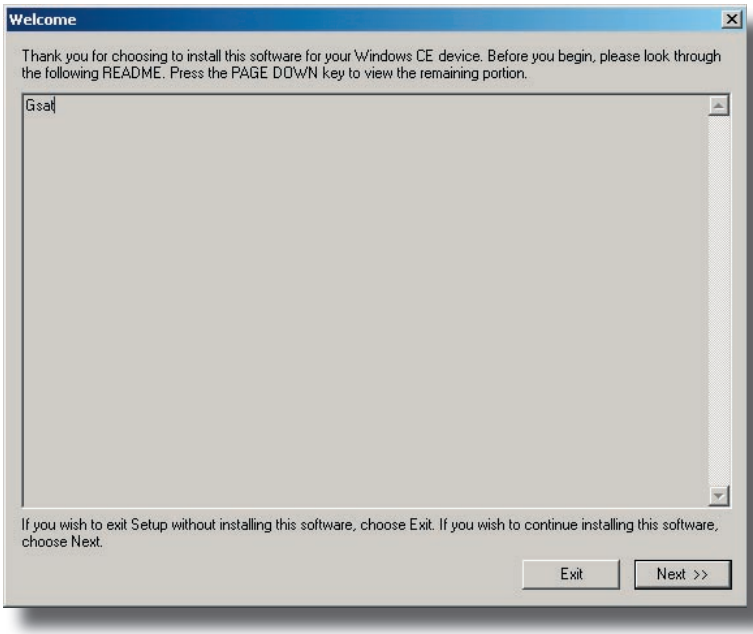
4. Install Driver

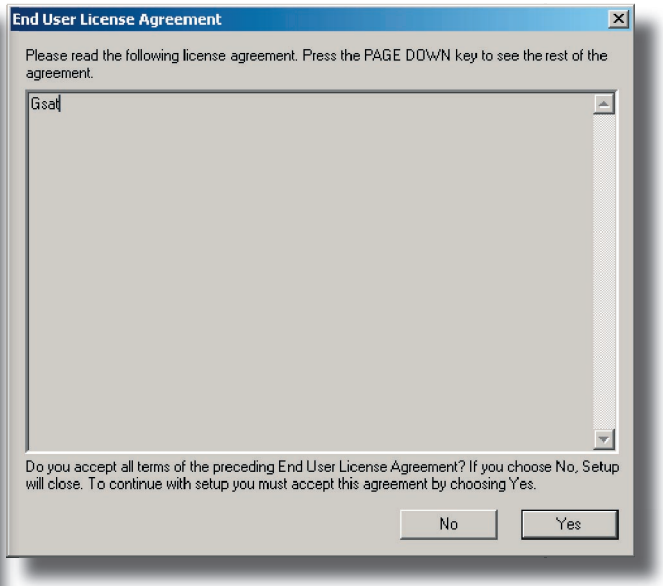
You have to install the driver before you can use the SD-502 GPS receiver with your Pocket PC. The driver will be installed into the Pocket PC via the **ActiveSync** program. So, before you start, please make sure the **ActiveSync** has been installed and the Pocket PC is connected to your desktop PC.

(1). Put the CD into CD-ROM drive. The AutoRun will start the installation program automatically. Click on the **"Install Driver for WinCE"** button to install the driver. (or you can manually install it by double click the "**GlobalSatSDGPS.exe**" from the root directory of the CD.)

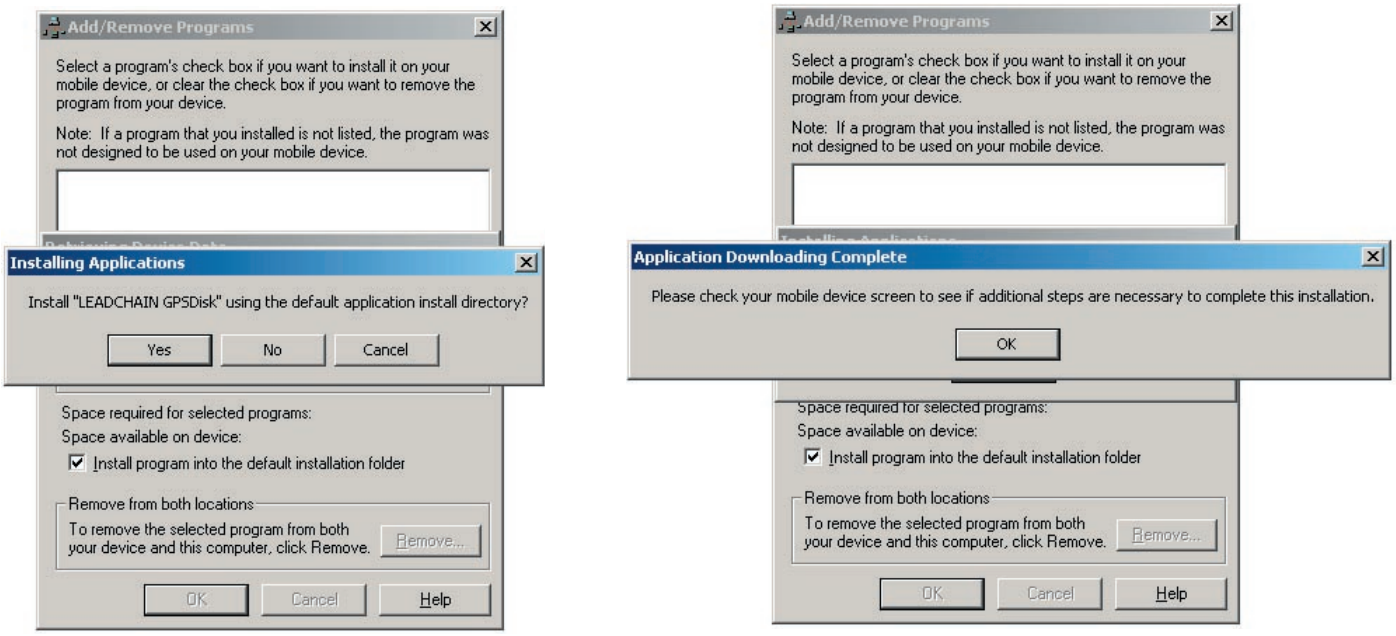


(2). Click the **Next** button on the Welcome dialog box and click **Yes** button on the End User License Agreement dialog box.





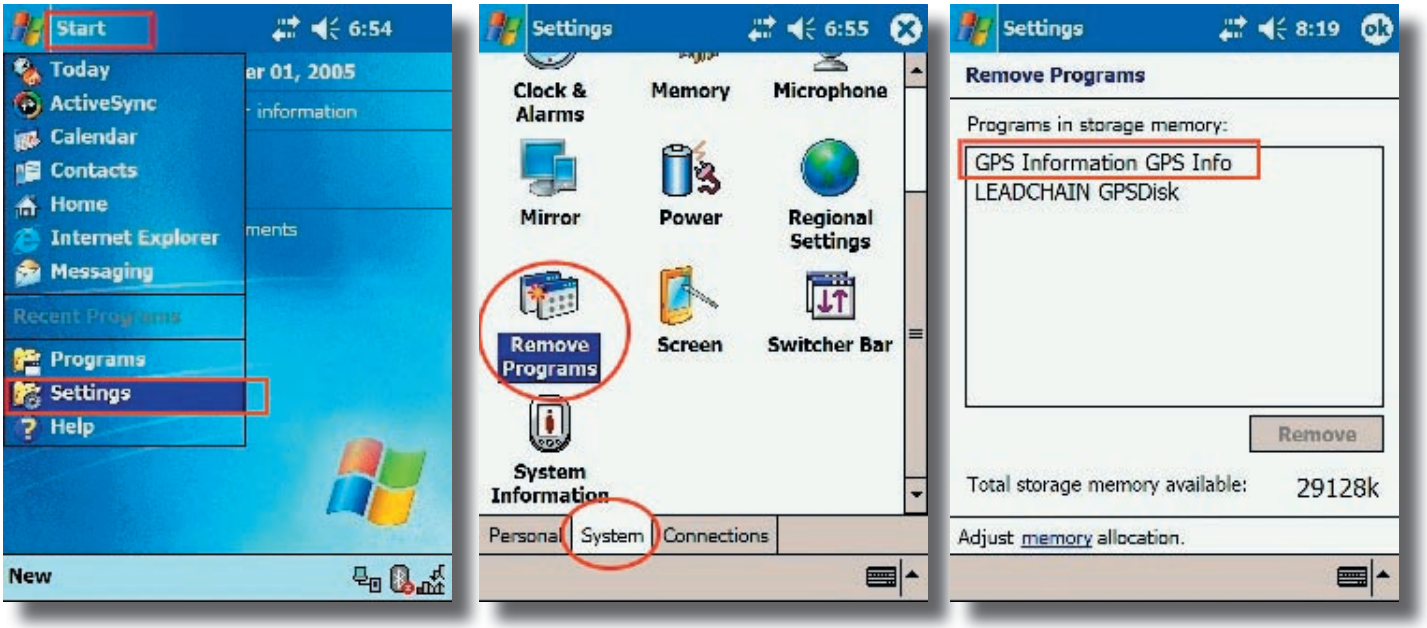
(3). Click **Yes** and **OK** on next 2 dialog boxes. Now the driver has been installed in your PDA.



(4). Click **Exit** button to close the AutoRun program.



(5). If you want to check whether the program has been properly installed or not, please do the following steps. In your PDA, tap **Start** / **Settings**, tap **System** tab and then **Remove Programs** icon. You will see the "**GPS Information GPS Info**" is on the list.



FCC Notices

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
(1)This device may not cause harmful interference, and
(2)This device must accept any interference received, including interference that may
cause undesired operation .

FCC RF Exposure requirements:
This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.